

# Kaplan

## RELIABLE MACHINE FOR LOW HEADS

An axial-flow reaction turbine for heads of 1.5–35 m and flows up to 200 m<sup>3</sup>/s. Both the runner blades and the wicket gates adjust in real time, so efficiency stays high even when the flow changes sharply.

|                           |                                          |                                |                                   |
|---------------------------|------------------------------------------|--------------------------------|-----------------------------------|
| HEAD<br><b>1.5 – 35 m</b> | FLOW<br><b>1.2 – 200 m<sup>3</sup>/s</b> | OUTPUT<br><b>20 kW – 20 MW</b> | RUNNER<br><b>Ø 550 – 5 500 mm</b> |
|---------------------------|------------------------------------------|--------------------------------|-----------------------------------|

## CONFIGURATIONS

Five arrangements adapt the same hydraulics to your civil works, from open pit installations to compact S-type units.

| CONFIGURATION          | HEAD       | FLOW                        | OUTPUT          | RUNNER BLADES | DRIVE                            |
|------------------------|------------|-----------------------------|-----------------|---------------|----------------------------------|
| <b>Kaplan PIT</b>      | 1.5 – 12 m | 15 – 150 m <sup>3</sup> /s  | 400 kW – 8 MW   | 3 – 4         | Belt · Parallel gearbox          |
| <b>Kaplan Vertical</b> | 1.5 – 35 m | 3.5 – 200 m <sup>3</sup> /s | 70 kW – 20 MW   | 4 – 6         | Direct · Belt · Parallel gearbox |
| <b>Kaplan Bulb</b>     | 1.5 – 12 m | 5 – 45 m <sup>3</sup> /s    | 100 kW – 3 MW   | 3 – 4         | Direct · Belt · Bevel gearbox    |
| <b>Kaplan Z</b>        | 2 – 35 m   | 2 – 60 m <sup>3</sup> /s    | 30 kW – 20 MW   | 4 – 6         | Direct                           |
| <b>Kaplan S</b>        | 1.5 – 15 m | 1 – 14.5 m <sup>3</sup> /s  | 20 kW – 1.75 MW | 4 – 5         | Direct · Belt                    |

## APPLICATIONS

- 01 **Run-of-river plants**
- 02 **Irrigation canals and weirs**
- 03 **Existing dams and locks**
- 04 **Modernization of old plants**

## KEY FACTS

- 260+ Kaplan units installed worldwide
- Double regulation: blades + wicket gates
- Runner diameters from 550 to 5 500 mm
- Best suited to Uzbekistan's canal network

## SELECTED REFERENCES

|                         |                |                |                                              |
|-------------------------|----------------|----------------|----------------------------------------------|
| <b>Grodnenskaya HPP</b> | Belarus        | 5 × Kaplan PIT | P 18.87 MW · H 7 m · Q 300 m <sup>3</sup> /s |
| <b>Alba HPP</b>         | Italy          | 2 × Kaplan PIT | P 4.12 MW · H 5.9 m · Q 80 m <sup>3</sup> /s |
| <b>Yipo HPP</b>         | South Korea    | 3 × Kaplan PIT | P 3.3 MW · H 2.3 m · Q 168 m <sup>3</sup> /s |
| <b>Lovosice HPP</b>     | Czech Republic | 4 × Kaplan PIT | P 2.6 MW · H 1.9 m · Q 160 m <sup>3</sup> /s |